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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,899	12/17/2001	Akio Watanabe	217205US2	7342

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EXAMINER

RAMPURIA, SATISH

ART UNIT	PAPER NUMBER
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2191

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,899

Applicant(s)

WATANABE ET AL.

Examiner

Satish S. Rampuria

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the application filed on 12/17/2001.
2. Claims 1-47 are pending.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copies have been received on 12/17/2001.

Specification

4. The abstract of the disclosure is objected to because it contains more than 150 words. Correction is required. See MPEP § 608.01(b).

Drawings

5. The drawings were received on 12/17/2001. These drawings are accepted by the examiner.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-5, 23, 41, 42 and 45-47 are rejected under 35 U.S.C. 102(a) as being anticipated by Japanese Publication No. 09-081416 to Kenji (hereinafter called Kenji).

Per claim 1, 45-47:

Kenji disclose:

- a peripheral equipment control section configured to control at least one peripheral device (page 1, paragraph 4 “control section... controls... mechanism section based on information from... control unit”);
- a peripheral equipment communication section configured to control communication with the at least one peripheral device (page 2, paragraph 11 “equipment 21 connected and information transmission and reception could be performed to the control section 3 or a processor”);
- a function control section (page 1, paragraph 4 “processor... equipped with ... control section”) configured to control the peripheral equipment control section (page 1, paragraph “control section... controls... mechanism section based on information from... control unit”) and peripheral equipment communication section (page 2, paragraph 11 “equipment... connected and informational transmission and reception could be performed... of a processor”);
- a sequence control section configured to control a sequence for the peripheral equipment control section, the peripheral equipment communication section and the function control section (page 2, paragraph 12 “control unit... input function... connects with the

processor equipped with the control section 3... controls the mechanism section base on the information from said control unit"); and

- an editing section configured to generate operation file specifying functions performed by the peripheral equipment control section and the peripheral equipment communication section (page 2, paragraph 12 "inputted the test data from the test-data file 23 prepared beforehand, and was directed by said command was performed, and it has the function which outputs the data of an activation result to the activation result file 24"), the editing section configured to generate a process procedure file specifying a procedure by the sequence control section (page 2, paragraph 14 "equipment 21 compares the data of said activation result file 24 with the data of the master file... justification of an activation result"), and a control file specifying a manner of controlling performed by the function control section, wherein the process procedure file and the control file are generated based upon input from the inputting apparatus (page 2, paragraph 15 "equipment 20 reads the input data of the input data file... displayed on a screen base on input data..... an operator issues direction on a screen... transmitted to control section").

Per claim 2:

The rejection of claim 1 is incorporated, and further, Kenji disclose:

- wherein the peripheral equipment control section, the peripheral equipment communication section, the function control section, and the editing section are composed of a software (page 1, paragraph 1 "invention relates to the test equipment which tests software (program)... operates on... Facility"), said software being

reprogrammed by the editing section when prescribed hardware information and a parameter of prescribed apparatus environment are set through the inputting apparatus (page 1, paragraph 2 “software which operates on... processor was developed newly, or when a part was changed... justification of software needed to be verified and it was testing using actual equipment”).

Per claim 3, 4, 5:

Kenji disclose:

- providing an inspection item definition file configured to define an inspection item (page 1, paragraph 5 “inputting the software for a test (program) in to a control section”);
- reading the inspection item definition file (page 1, paragraph 6 “based on the actuation information from a control unit ”);
- setting details of an inspection item in a memory (page 1, paragraph 6 “performs predetermined processing directed from the control section”);
- sequentially inspecting the details of the inspection item while reading the details from the memory (page 1, paragraph 3 “justification of software is verified... reconstruction arises for software...”); and
- editing the inspection item definition file when a different type of object is inspected (page 2, paragraph 12 “inputted the test data from the test-data file 23 prepared beforehand, and was directed by said command was performed, and it has the function which outputs the data of an activation result to the activation result file 24”).

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Per claim 23, 41:

Kenji disclose:

- a software recombining section configured to recombine a software of inspection use in accordance with a type of the object (page 2, paragraph 9 “test... modifications of small scale reconstruction of software or a control unit”); and
- means for reading inspection progress information related to the object during simulation (page 1, paragraph 6 “based on the actuation information from a control unit ”), said means for reading displays a resultant on a screen of a display unit (page 2, paragraph 12 “has the function... outputs the data of an activation result to the... result file...”).

Per claim 42:

Kenji disclose:

- a controlled device configured to perform a prescribed function (page 1, paragraph 4 “control section... controls... mechanism section based on information from... control unit”);
- an interface section configured to indicate a status of the controlled device (page 2, paragraph 11 “equipment 21 connected and information transmission and reception could be performed to the control section 3 or a processor”);
- a control processor configured to inspect the controlled device by transmitting a prescribed command to the controlled device (page 1, paragraph 4 “processor... equipped with ... control section” and page 1, paragraph “control section... controls... mechanism section based on information from... control unit”); and

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- means for determining in advance to transmission of the prescribed command whether an execution result of command processing will be abnormal by accessing the interface section and acquiring information of status of the controlled device section (page 2, paragraph 12 “control unit... input function... connects with the processor equipped with the control section 3... controls the mechanism section base on the information from said control unit”).

8. Claims 17-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of US Patent No. 6,421,071 to Harrison (hereinafter called Harrison).

Per claim 17, 18, 19, 20, 21:

Harrison disclose:

- A general-purpose inspecting system having a log function of filing inspection resultant as a log file to be analyzed (col. 1, lines 22-23 “analyzing data in a group of log files... display device”), said general-purpose inspecting system comprising:
- a data sampling section configured to sample only necessary information from said log file as sample data (col. 2, lines 5-12 “user selects a set of log files... displaying the top of the log files”); and
- a sample data file generation section configured to generate a sample file having a smaller size than a size of the log file (col. 2, lines 5-12 “user selects a set of log files... displaying the top of the log files”), said sample data file storing the sampled data (col. 2, lines 47-49 “Memory... database of log files...regular basis”).

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Per claim 22:

The rejection of claims 20 or 21 is incorporated, and further, Harrison disclose:

- wherein said display section generates prescribed statistical data from a plurality of sample data files (col. 2, lines 18-21 “lines of the log file being displayed... same time stamp”).

Substantially as claimed.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of Japanese Publication No. 09-006702 to Kunio (hereinafter called Kunio).

Per claim 6, 7:

The rejection of claim 5 is incorporated, and further, Kenji does not explicitly disclose putting a macro name to a prescribed basic command band; and preserving said basic command band in a macro definition file.

However, Kunio discloses in an analogous computer system putting a macro name to a prescribed basic command band (page 1, paragraph 5 “response creation... create the parameter

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of the control command”); and preserving said basic command band in a macro definition file (page 2, paragraph 10 “control command... supported... configuration... computer”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of having a macro name and including in a file as taught by Kunio into the method of testing a device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to have a macro name to create automatically device driver software as suggested by Kunio (page 1, paragraph 1).

Per claim 8:

The rejection of any one of claims 3 to 6 is incorporated, and further, Kenji does not explicitly disclose installing the operation file, the process procedure file, and the control file in a directory based on an inspection object; and executing an inspection regarding the inspection object by referring to said operation file, said process procedure file, and said control file from an applicable directory.

However, Kunio discloses in an analogous computer system installing the operation file (page 2, paragraph 8 “installs the created software”), the process procedure file, and the control file in a directory based on an inspection object; and executing an inspection regarding the inspection object by referring to said operation file, said process procedure file, and said control file from an applicable directory (page 2, paragraph 11 “response program execution... performs a response program... the parameter... transmitted... computer”).

The feature of installing the operation file, the process procedure file, and the control file in a directory based on an inspection object; and executing an inspection regarding the inspection object by referring to said operation file, said process procedure file, and said control file from an applicable directory would be obvious for the reasons set forth in the rejection of claim 6.

11. Claims 9-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of Kunio and further in view of US Patent No. 6,381,565 to Nakamura (hereinafter called Nakamura).

Per claim 9, 10, 11, 12, 13, 14, 16:

Kenji disclose:

- a displaying device configured to display a list of the circuit baseboards (page 2, paragraph 13 “display it on the screen... equipped with function transmit”);
- a determining device configured to determine a type of a circuit baseboard selected from the list via the displaying device (page 2, paragraph 13 “display it on the screen... equipped with function transmit”);

Kenji does not explicitly disclose a correspondence assigning device configured to assign correspondence of a PLD file to a type of a circuit baseboard to be loaded with the PLD file, a PLD file specifying device configured to refer to the correspondence information of the registering memory and specify an applicable PLD file based upon the circuit baseboard type file; and a loading device configured to load the PLD with the applicable PLD file.

However, Kunio discloses in an analogous computer a correspondence assigning device configured to assign correspondence of a PLD file to a type of a circuit baseboard to be loaded with the PLD file (page 2, paragraph 7 “peripheral device which has the response program which transmits the control command... and the parameter of a proper...”); a PLD file specifying device configured to refer to the correspondence information of the registering memory and specify an applicable PLD file based upon the circuit baseboard type file (page 2, paragraph 7 “peripheral device which has the response program which transmits the control command... and the parameter of a proper...”); and a loading device configured to load the PLD with the applicable PLD file (page 4, paragraph 26 “the class of device driver software... printer driver software... loads a program”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of loading a file corresponding to the circuit board in response to the command as taught by Kunio into the method of testing a peripheral device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to load the corresponding circuit board in response to the command to provide an automatic testing of a device as suggested by Kunio (page 1, paragraph 1).

Neither Kenji nor Kunio disclose An inspecting apparatus for inspecting a performance of a variety of circuit baseboards a programmable logic device (PLD) configured to inspect a circuit baseboard based upon a signal transmitted from the circuit baseboard a file storing device configured to store a plurality of PLD files a registering memory configured to store information of the correspondence.

However, Nakamura discloses in an analogous computer system an inspecting apparatus for inspecting a performance of a variety of circuit baseboards (col. 1, lines 56-58 “a functional logic verification device”), comprising: a programmable logic device (PLD) configured to inspect a circuit baseboard based upon a signal transmitted from the circuit baseboard (col. 2, lines 13-16 “verified fictional logic circuit... verification of the functional logic circuit is executed by actually supplying electric signals”); a file storing device configured to store a plurality of PLD files (col. 1, lines 56-58 “a functional logic circuit verification device, by which high-capacity memory”); a registering memory configured to store information of the correspondence (col. 1, lines 56-58 “a functional logic circuit verification device, by which high-capacity memory”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of inspecting the circuit board based up on signal and storing registering information as taught by Nakamura into the method of testing a peripheral device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to test circuit board base upon a signal and storing the registration information to provide the improved efficiency of verification as suggested by Nakamura (col. 1, lines 55-64).

12. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of Kunio and further in view of US Patent No. 6,401,220 to Grey et al. (hereinafter called Grey).

Per claim 15:

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The rejection of claim 14 is incorporated, and further, Neither Kenji nor Kunio explicitly disclose a log obtaining device configured to obtain log information when said PLD is loaded with the PLD file, wherein said load completed PLD file determining device determines if the PLD file has been loaded to the PLD of the inspection circuit based upon the log information.

However, Grey discloses in an analogous computer system a log obtaining device configured to obtain log information when said PLD is loaded with the PLD file, wherein said load completed PLD file determining device determines if the PLD file has been loaded to the PLD of the inspection circuit based upon the log information (col. 1, lines 45-48 “The executive code typically includes functionality such as UUT identification, operator notification, test report generation, and logging results” and (col. 6, lines 14-16 “Common operations include identifying the UUT, notifying the operator of pass/fail status, generating a test report, and logging results”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of logging results for the unit under test as taught by Grey into method of testing peripheral device as taught by the combination system of Kenji and Kunio. The modification would be obvious because of one of ordinary skill in the art would be motivated to log the test results to improve the test executive program to provide flexibility, modularity and configurability as suggested by Grey (col. 2, lines 22-45).

13. Claims 24 –31, 32, and 34-40 rejected under 35 U.S.C. 103(a) as being unpatentable over Kenji in view of in view of US Patent No. 6,453,435 to Limon, Jr. et al. (hereinafter called Limon).

Per claim 24 –31, 34-40:

Kenji disclose:

- means for displaying respective inspection items to be inspected on the screen in an order of the execution (page 1, paragraph 6 “based on the actuation information from a control unit ” and page 2, paragraph 12 “has the function... outputs the data of an activation result to the... result file...”);

Kenji does not explicitly disclose means for selectively setting and resetting a breakpoint, said breakpoint halting inspection of a corresponding item, wherein the inspection operation configured to continuously inspect items one after another is halted where the breakpoint is set by the means for selectively setting and resetting.

However, Limon discloses in an analogous computer system means for selectively setting and resetting a breakpoint, said breakpoint halting inspection of a corresponding item (col. 18, lines 27-30 “When the debug mode... set one or more breakpoints... as a breakpoint”), wherein the inspection operation configured to continuously inspect items one after another is halted where the breakpoint is set by the means for selectively setting and resetting (col. 19, lines 3-10 “While the... halt the interpretation... STOP button... as a breakpoint... Go button”).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the method of using breakpoints in testing circuit boards as taught by Limon into the method of testing the device as taught by Kenji. The modification would be obvious because of one of ordinary skill in the art would be motivated to use breakpoints in testing circuit boards to provide an improved technique for testing circuit board as suggested by Limon (col. 2, lines 5-25).

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Claim 32 is the computer program product claim corresponding to method claim 24 and rejected under the same rationale set forth in connection with the rejection of claim 24 above.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Satish S. Rampuria** whose telephone number is **(571) 272-3732**. The examiner can normally be reached on **8:30 am to 6:00 pm** Monday to Friday except every other Friday and federal holidays. Any inquiry of a general nature or relating to the **status** of this application should be directed to the **TC 2100 Group receptionist: 571-272-2100**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kakali Chaki** can be reached on **(571) 272-3719**. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Satish S. Rampuria

Patent Examiner

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03/21/2005

Kakali Chaki

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